

What's new in

Dolphin Imaging 12.0

Welcome to Dolphin Imaging 12.0! This document provides an overview of many of the new features that have been added since version 11.95. For more in-depth information about the features mentioned here, please refer to your *Dolphin Imaging User's Guide*, available by pressing the Windows logo key, and typing "Dolphin Manual". For easy reference, some sections contain corresponding user manual "chapter-page" numbers within parentheses.

Several aspects of the software have new features. To learn about these features, it is highly recommended that you read this **What's New** document from front to back... and if possible, try the features on the computer as you read. Please note that some of this documentation covers optional software modules.

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Dolphin Requirements (1-1)

At Dolphin, we take advantage of the latest Windows technologies. Some of these technologies do not work under obsolete Windows operating systems (Windows 7, Windows 8.0, etc.). For our up-to-date requirements, see: www.dolphinimaging.com/reg

IMPORTANT: Starting with Dolphin 12.0, Dolphin Imaging is now a 64-bit app, so it supports **only** 64-bit versions of Windows! Dolphin recommends 64-bit Windows 10 or 11, or 64-bit Server 2019.

IMPORTANT: Starting with Dolphin 12.0, Dolphin Imaging now supports only internet-delivered “DOLI” Licensing. We no longer support physical USB dongles. If you have any USB dongles, please contact Dolphin to arrange to swap those for DOLI licenses.



Discontinuation of Dolphin Standard

Dolphin Standard versus Dolphin Premium

Starting with Dolphin version 6.5, and including versions 6.7–11.95, we split the Dolphin product into two levels: The standard Dolphin and the Premium full database version of Dolphin. The first two benefits we introduced with the Premium version were storage of far more detailed patient information and a new Dolphin Letter System that extracts from this rich pool of data.

Since then, we have developed many new products that require Dolphin Premium, such as Dolphin Management, AnywhereDolphin.com, Dolphin 3D, Dolphin 3D Surgery, Dolphin Aquarium, Dolphin Mobile, My Orthodontist, etc.

Now, starting with Dolphin 12, we no longer develop or support the “standard” version. So, you will not be able to upgrade to Dolphin 12 until you convert to Premium!

For customers with a service club contract, Dolphin now offers the upgrade to premium for free, with no added support fees! If you are still running standard, please take advantage of this offer.

General / Imaging Plus Enhancements

This section describes new features that you will see regardless of which optional modules you own.

64-bit Rewrite (1-1)

While Dolphin 12 may look similar to version 11.95, it has been completely re-written as a 64-bit application! Previously, Dolphin could only use 2GB of RAM, regardless of how much memory your computer had. Dolphin 12 can use up to **2 billion times** as much memory! This allows loading larger DICOM datasets, larger digital model files, etc. This 64-bit version is also faster at loading high-resolution camera photos (though we still recommend setting your camera to no more than five megapixels for optimal images and optimal performance). The Email feature in Dolphin now supports both the 32-bit and 64-bit editions Microsoft Outlook. And the Dolphin Letter System now supports both the 32-bit and 64-bit editions of Microsoft Word.

25-Character Patient IDs (4-40)

Historically, Dolphin has been limited to 10-character maximum patient IDs. We now support up to 25-character patient IDs (still using the character set of: Uppercase letters, digits, underscore, and dash).

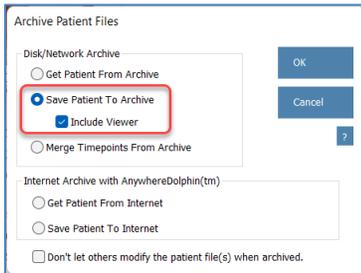
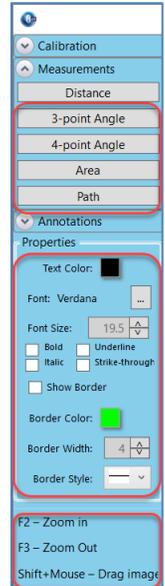
Patient Basic Information

THIS_IS_A_LONG_PAT_ID
Doe
John

Measurements and Annotations Enhancements

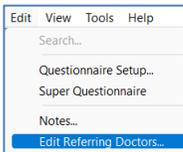
The Measurements and Annotations screen has the following enhancements:

- New “path length” and “area” measurements. (3-43 to 3-45)
- Ability to measure 3-point and 4-point angles without having to calibrate image first. (3-44)
- When you select a measurement drawing to adjust it, the associated measurement number is highlighted as well, for identification. And you can now drag the measurement value number to your preferred location. (3-46)
- You can now set the color, thickness and line style of measurements. (3-46 to 3-47)
- You can now change annotation measurement label properties (font size, etc.) (3-49 to 3-51)
- You can hold the <shift> key to draw horizontal or vertical lines or measurements. (3-44, 3-48)
- The Measurements & Annotations screen now has on-screen panning and zooming instructions.



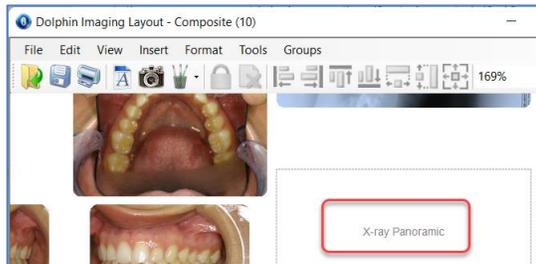
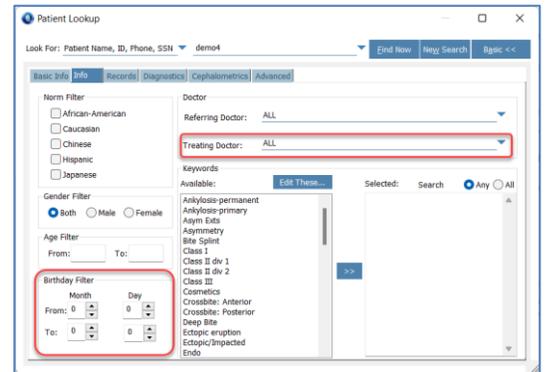
Bundle Free Viewer with Dolphin Archive (4-50 to 4-51)

When you Archive | Save a patient, you now have the option of including a copy of our free viewer with the archive. This allows you to burn a CD or a flash drive that you can give to anyone, that when inserted, will automatically install and launch our free viewer and open the patient data.



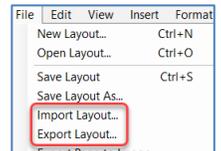
Patient Lookup Enhancements

- We added the ability to add/modify/delete the “Referring Doctor Types” list. (3-56)
- Allow searching a range of birth dates without the year. For example, search all birth dates from May 1 to May 31, regardless of year, to find the May birthday patients. (4-23)
- Added ability to search patients by Treating doctor. (4-24)



Layout Editor Enhancements

- The layout editor used to display “No Image” when viewing a layout for a patient who didn’t have all image slots filled. Now it displays the slot name, for ease in editing layouts. (17-2)
- The layout editor now supports import/export, so you can share layout designs with other offices. (17-11)



Additional Anonymizer Bars (3-52)

By default, we used to only add anonymizer bars to the frontal, front smile, and right profile photos. We now add bars to the left-profile, the smiling profiles, the 3/4 views – all facial photos.



1-Click Capture Enhancements

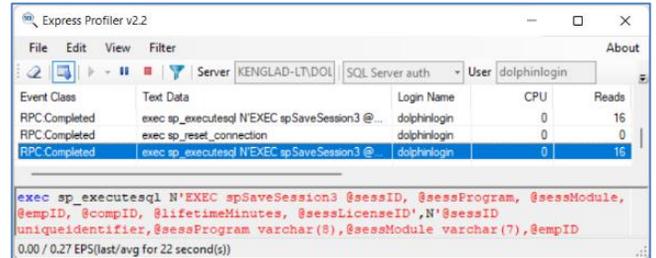
- 1-Click Capture now supports capturing “raw” image file formats. So if you have a Nikon camera set to shoot in .NEF format, or a Canon that shoots in .CR3, etc., you can now capture those images into Dolphin. (5-3)
- 1-Click Capture now senses and reports if you try to capture a corrupted image file.

Integration Enhancements

- Dolphin now supports the VDDS integration standard protocol. So, if you have a practice management system that supports VDDS, that management system can now integrate with Dolphin automatically.

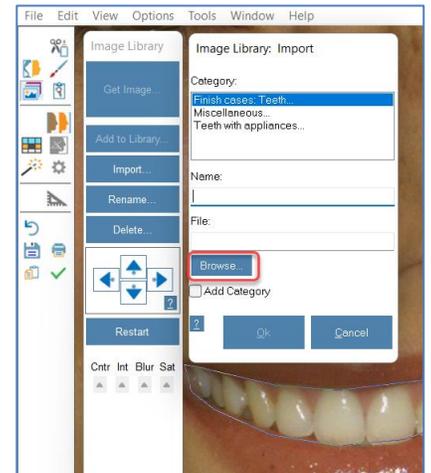
Database Enhancements

- The Dolphin installer will now recognize if you have SQL 2019 installed, and it will use that version for the Dolphin database. And for new installations, we now install SQL 2019 Express.
- Added Express Profiler Utility, for use by our tech support dept. to trace SQL commands.
- Loading patients into the main screen is now much faster for large patient image databases.



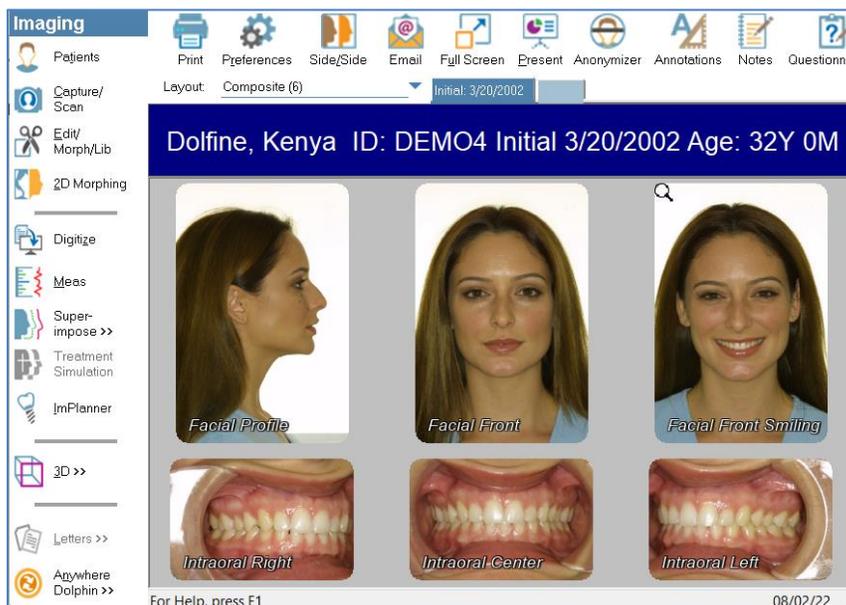
Consultation Module Enhancements

- Allow the user to browse to external images to add to the smile library. (6-15)
- When drawing a library image over a patient, support transparency (if the image has it), for overlaying smile template outlines.



General Enhancements

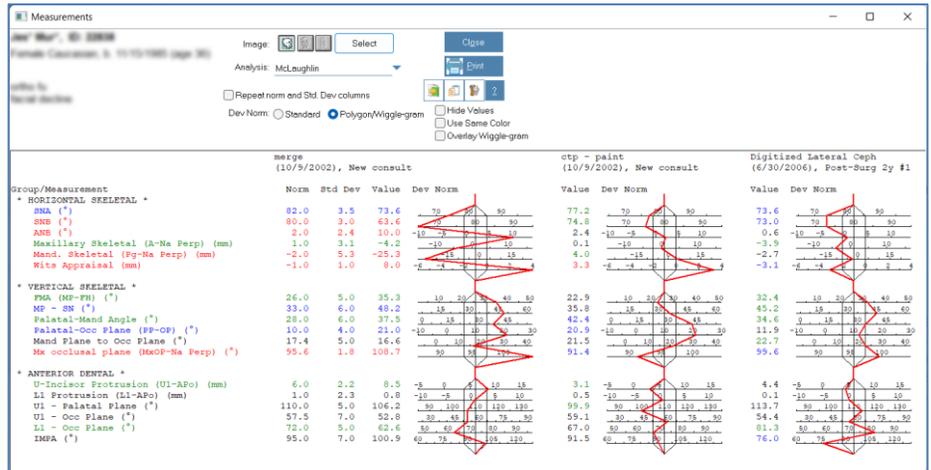
- Optionally display a bar with the patient's name in a large font in main window, like in the Dolphin Management screen. (3-11)
- Added <ctrl><tab> and <ctrl><shift><tab> keyboard shortcuts to move to the next or previous timepoint while keeping the same layout in main window. (3-27)



Cephalometric Tracing and Analysis and Treatment Simulation

Multi-Measurement Table (8-2)

The cephalometric measurement table now allows you to choose multiple ceph tracing images or treatment simulation images, instead having to choose only one. This then produces a multi-column measurement table, allowing you to compare measurements over time or over treatment simulation or over actual treatment progress. If you choose the “wigglesgram” deviation option, you can either see a series of wigglesgrams going across, or you can choose to overlay the wigglesgrams as a superimposition.



All New Custom Analysis Editor (Chapter 18)

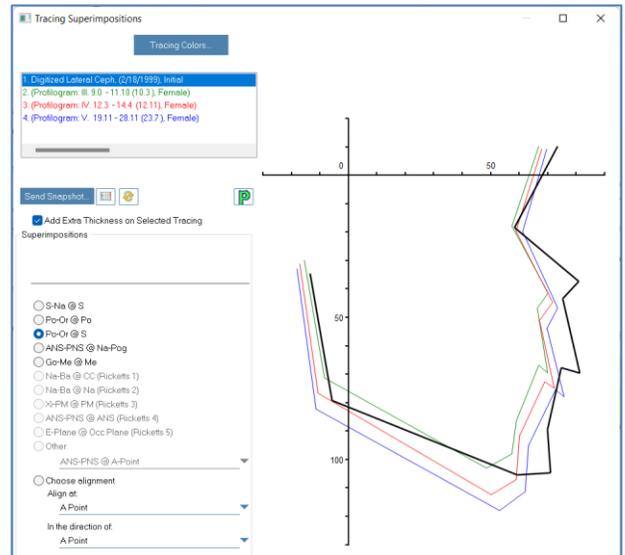
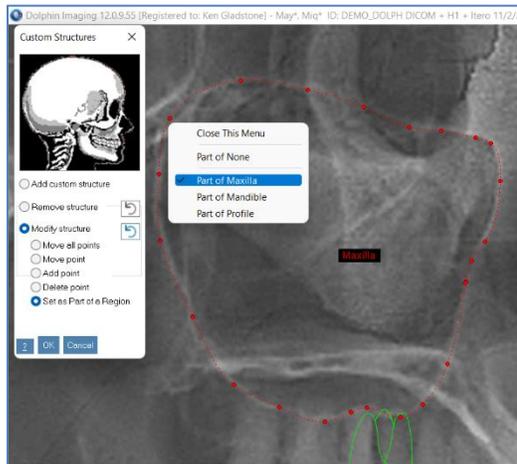
The Custom Analysis Editor has been re-written with the following new features:

- In addition to creating Custom Analyses, the user can now also create (and delete) their own custom landmarks, measurements and lines.
- Custom Analyses are now stored in a centralized network location, so they are automatically shared between all computers on your network. No need to manually copy analyses. **NOTE:** The first time you run Dolphin 12, if you have any custom analyses, the software will have you choose which computer’s analyses become your network’s centralized set.
- The editor now supports custom 3D analyses in addition to 2D lateral analyses.
- For a custom 3D landmark, user can select if it is a Soft Tissue landmark, a Hard Tissue landmark or N/A, to trigger appropriate volume display when digitizing.
- When creating a custom landmark, you can locate the red crosshair point on the x-ray and cartoon images, to aid users in digitizing your analyses. And you can enter descriptive text to show to the user when digitizing the landmark.
- The editor now allows you to customize your preferred landmark digitization order. If you don’t like “Porion, Orbitale, PT Point, Sella, Nasion, Basion...,” you can now set your own order.

- The editor now supports drag and drop, which you can use to add or remove measurements and lines, or to reorder your measurement table.
- Automatically detect and repair custom analysis files that are using outdated measurements.
- Added export/import capabilities for sharing analyses (and landmarks, lines and measurements) between customer sites.

Superimposition Enhancements

- Added Tokyo Medical and Dental University and Osaka University Profilograms to Tracing Superimposition. (9-17 to 9-18)
- When creating a custom structure in ceph tracing, you can now choose a region (maxilla, mandible, profile, or none), so your custom structure will appear in multi-part tracing superimpositions. (7-28)

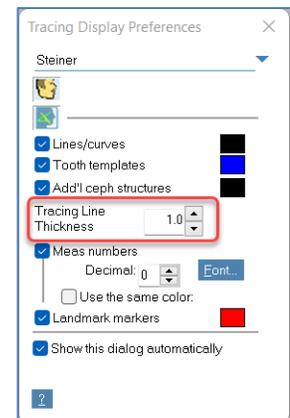


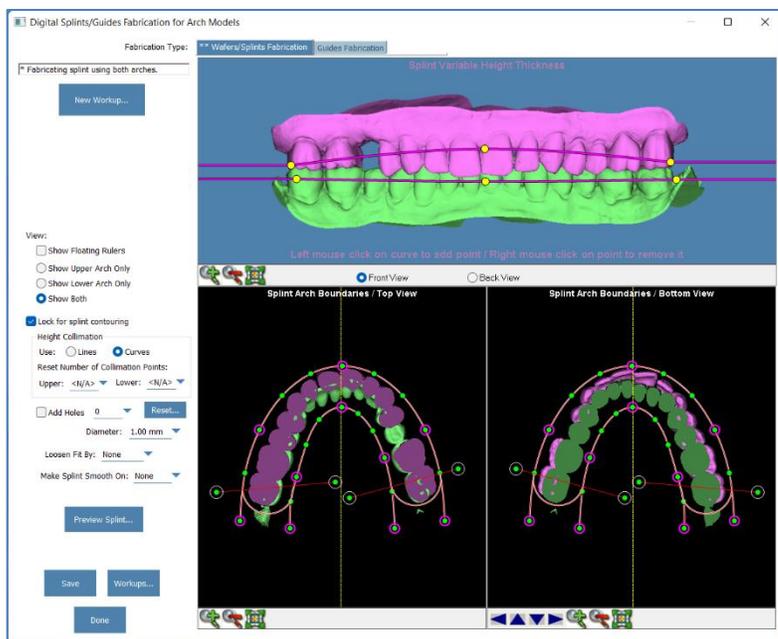
- We added “Send Snapshot” buttons to tracing over tracing and over image, to send your superimposition to the Windows clipboard, or printer, or a file, or save in a Dolphin image slot. (9-11, 9-31 to 9-33)
- When you are superimposing a tracing over an image, you can now use your mouse scroll wheel to zoom your image.

- In Tracing Superimposition, the currently selected tracing can now have a thicker tracing line width to visually help in identifying the tracing.
- In Tracing Superimposition, the measurement numbers on the tracing only show for the currently highlighted/selected tracing, as opposed to on all tracings which made the overlapping measurement numbers very hard to visualize.

General Ceph Tracing Enhancements

- You can now use your mouse scroll wheel to zoom while digitizing.
- We have added more gray points to some of our auto-draw structures, to allow you to trace structure curves even more accurately.
- The Tracing Preferences Dialog now allows you to set tracing line thickness – which applies both on-screen and when printed. (3-67)





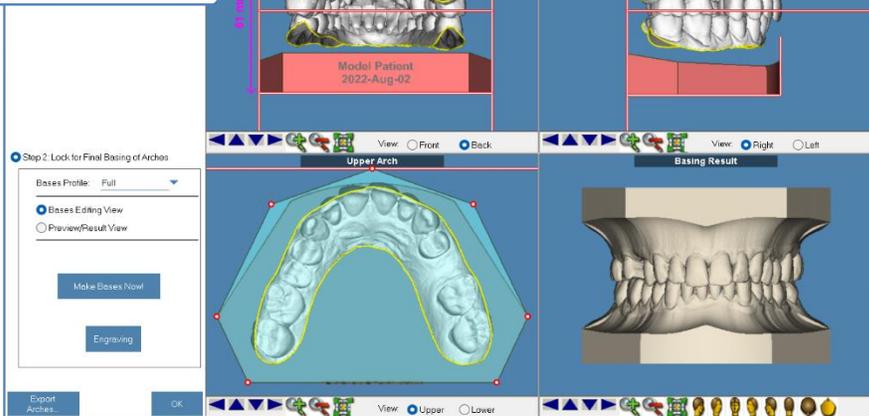
3D Study Model Module

Guides from Models! (3-143 to 3-153)

The Dolphin 3D Study Model Module has a major new feature: a splint/guide design system. This allows you to design orthognathic surgical guides, TMJ splints, bruxism appliances, sleep apnea appliances, etc., all without needing to take a CBCT and without needing our full 3D software suite.

Bases on Models (19-94 to 19-100)

The Dolphin 3D Study Model Module now allows you to design and add bases to your intraoral scans. You can choose to create either standard or low-profile base designs. And the system supports both uncolored scans in STL format, and colored scans in OBJ or PLY format.



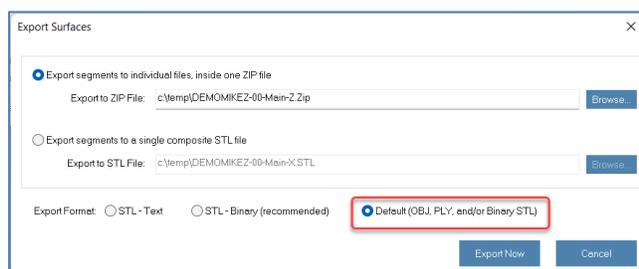
Engraving Text on Guides (19-100 to 19-101, 30-134 to 30-135)

The new Guide Design system and the new Bases on Models system in Dolphin 3D Models also allow you to engrave text on your guide and model designs. You can insert tokens that have that patient name, patient ID, timepoint date, etc. You can even engrave any arbitrary text you want.



Additional 3D Study Model Features

- Added support for PLY file format files, for importing color models and other surfaces. (19-83 to 19-84)
- Default to the "Undigitized Arch" image slot when exporting "2 up" model image from 3D Study Models view, for use in digitizing a 2D Arch Length Analysis. (22-6 to 22-7)
- When exporting surfaces to individual files, added option to save each surface in its original file format. This allows – for example – exporting study models or 3D photos in color, instead of only exporting colorless STL files. (19-79 to 19-81)



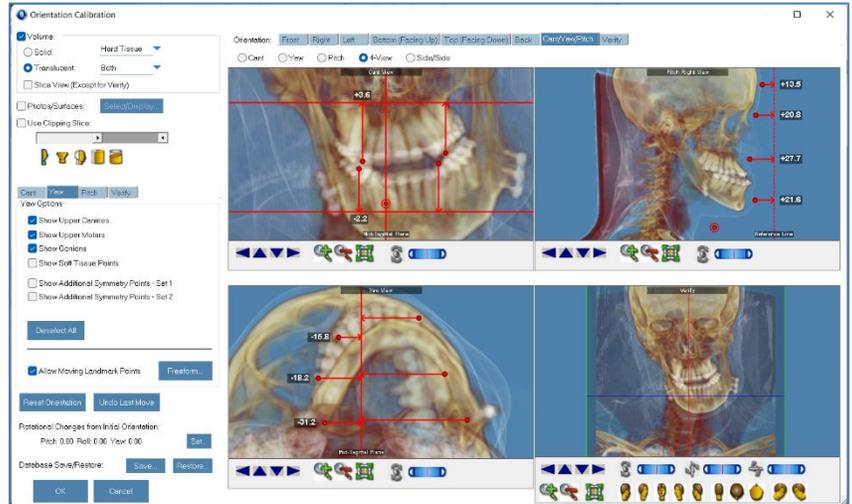
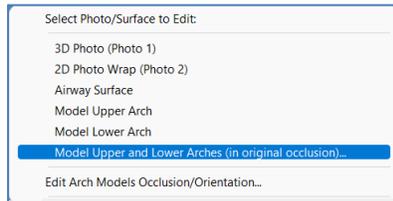
Dolphin 3D

Includes the New 3D Study Model Features

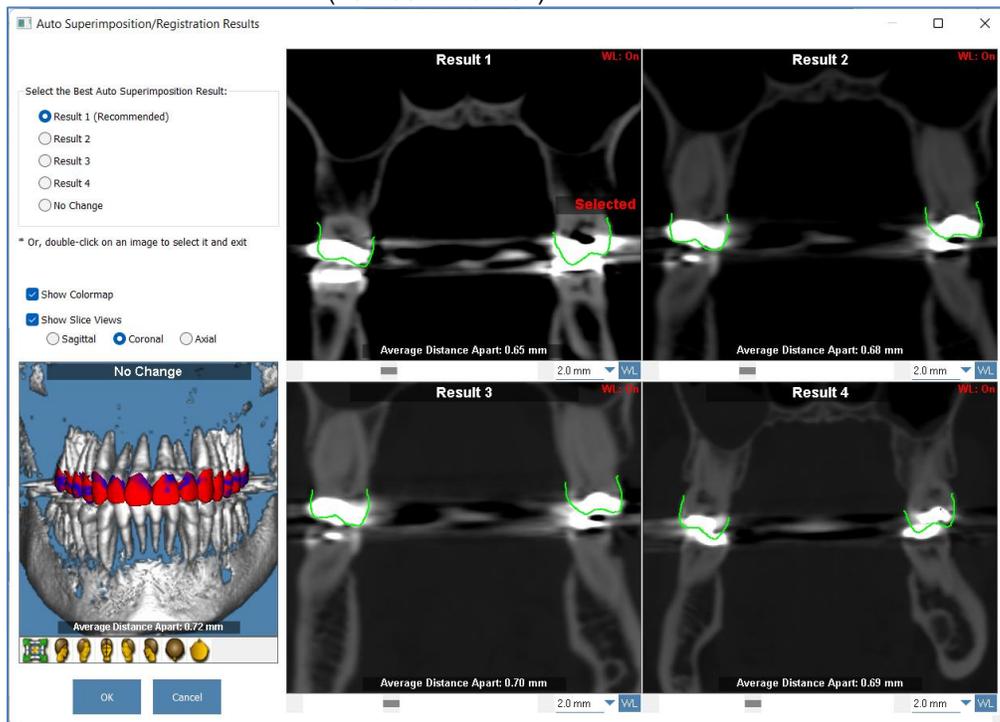
Since the Dolphin 3D module includes the 3D Study Models module, customers who purchase Dolphin 3D will get all the new 3D Study Model features listed above.

General 3D Enhancements

- In Orientation, consolidate the "Cant", "Yaw", and "Pitch" tabs into a more specialized "Cant/Yaw/Pitch" tab. (Chapter 20)
- Added option to superimpose both upper and lower arches to volume at the same time (in their original occlusion), for when teeth scan and CBCT are in same occlusion. (19-101)

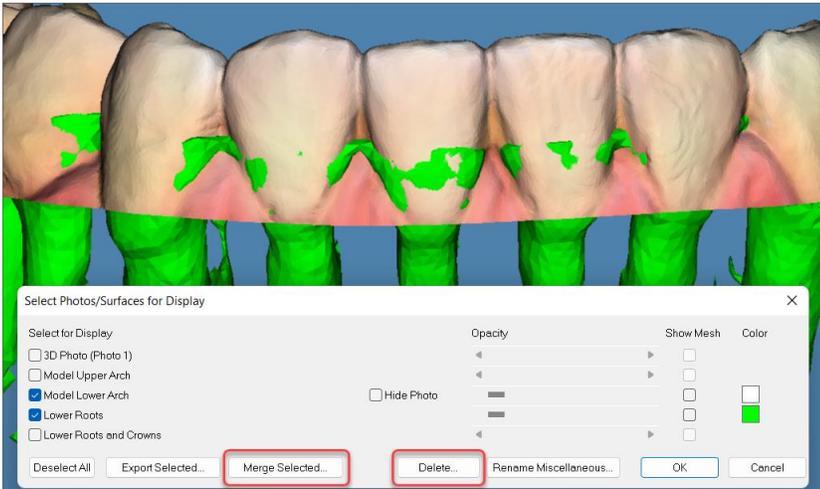
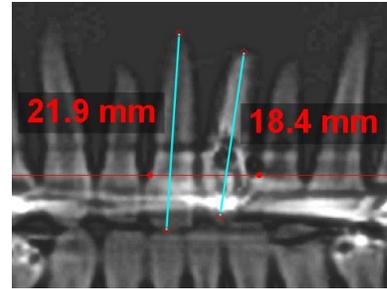


- Improved the performance of the surface/volume auto superimposition algorithm, with four new superimposition algorithms. (19-106 to 19-107)



- When loading a DICOM scan, Dolphin 3D now (by default) checks your Dolphin patient name against the embedded DICOM patient name and warns you if they don't match. You can turn that warning off if you prefer.

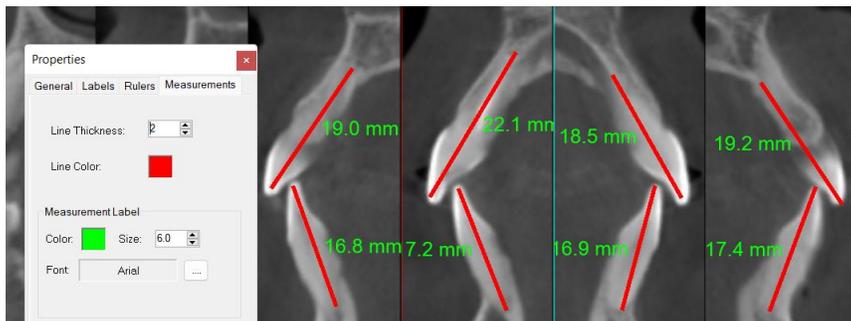
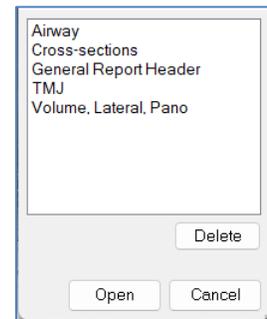
- In the Build X-ray screen, you can now adjust measurements and move measurement text numbers. (21-46, 21-47)
- Added the ability to merge multiple surfaces into one surface and save into another surface slot. (19-81, 19-82)
- When saving to a “miscellaneous” surface slot, you can now enter a name for that slot. (19-66, 19-82, 19-117)



- When exporting a DICOM from Dolphin, the relevant date/time stamps, such as creation date, will retain what was in the original imported DICOM. Previously, the current date/time was used. Furthermore, the DICOM patient name is set to use the LastName^FirstName convention. (19-120 – 19,121)
- In the main window surface selector’s option to delete surfaces, previously only the surfaces that are selected for display could be deleted. This dependency is removed. (19-117)

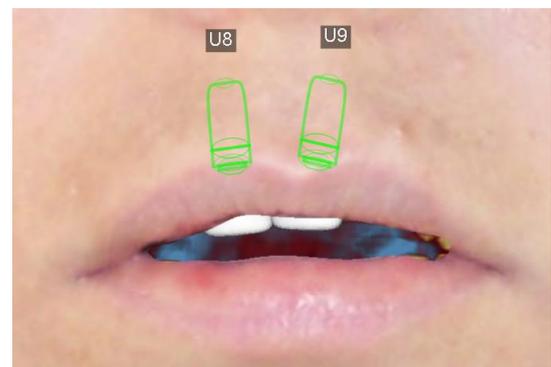
3D Reporting Enhancements

- We now supply several sample 3D Report layout templates, for you to use as a starting point when creating your own report designs. (Chapter 29)
- Measurement line thickness and fonts can now be customized in 3D reporting – no more microscopically small slice measurement numbers. (29-23)



3D Implant and TAD Planning Enhancements

- We have added several brands and models and sizes of implants and TADs to the library. (27-28)
- Increased selectable 3D TAD diameters to 2.5mm and selectable 3D TAD lengths to 18mm.
- Added the option to display soft tissue in the 3D Implants module, so you can see your implant crown restorations behind the lip cutout of a 3D photo or a 2D photo wrap. (27-4, 27-8)
- You can now export your implant crowns to surface slots, so you can display them in the main 3D window. (27-5, 27-27)



Dolphin 3D Surgery

Engraving Text on Guides (30-134 to 30-135)

Dolphin 3D Surgery now allows you to engrave text on your guide designs. You can insert tokens that have that patient name, patient ID, timepoint date, etc. You can even engrave any arbitrary text you want.

3D Surgery General Enhancements

- In 3D Surgery Treat tab, when doing “Move Mandible According to Initial Occlusion of the Teeth Model Overlay,” added new option to not move the proximal segments (30-105)
- In the Orientation part of the Surgery module, under the Yaw option, the rotation point by default is now set to upper incisors midpoint.
- In 3D Surgery Treatment tab, added an option to allow user to adjust midline to any reference. (30-82)
- In the Splint tab, renamed the stage options to: “Pre-op (Initial Occlusion),” “Intermediate Splint (Maxillary First),” “Intermediate Splint (Mandibular First),” and “Final Splint.” (30-125 to 30-127)
- Added options to switch between "Front" and "Back" views for the pano display in the "Splint" – useful for setting splint thickness for patients with lingual brackets. (30-127)
- Added "Loosen Fit By" option in surgery splint creation. (30-149)

